DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 2, 4-6, 8-10, 12-22, 24-27 and 29-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims **1, 2, 4-6, 8-10, 12-22, 26, 27 and 29-36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Middeke et al. (hereinafter 'Middeke', Patent No. 6,445,907) in view of Matsumura (Patent No. 6,412,082) in further view of Humpleman et al. (hereinafter 'Humpleman', Patent 6,546,419).

Regarding claims 1, 6, 21 and 26, Middeke teaches a method for analyzing the operation of a media distribution device (col. 2, lines 1-20), the method comprising the steps of:

determining whether a network connection is functional **(by monitoring whether a service request is received from the service center 28; Col. 6, lines 1-15)**;

determining whether a 1st diagnostic agent is functional, in response to a determination that the network connection is functional **(by detecting a service request at step 124, Col. 6, lines 17-18)**;

causing the 1st diagnostic agent, residing on the media distribution device, to collect diagnostic data associated with the media distribution device (STB), in response to a determination that the 1st diagnostic agent is functional **(gathering diagnostic information; Col. 6, lines 19-30)**;

analyzing the diagnostic data to determine an operational problem associated with the media distribution device (STB) **(service center analyzes the received diagnostic information; Col. 10, lines 60-63 and service technician remotely trouble-shoot and reconfigured the receiver; Col. 10, lines 35-55)** and with a second device not physically connected to the media distribution device **(Middeke refers to a satellite television system that serves and diagnoses not only one, but many other household terminals that are not physically connected to the first media distribution device. Therefore, the analysis of the diagnosis data is performed for more than one device found with problems, at least: col. 1 lines 8-10 and lines 37-60)**.

Additionally, for claims 6 and 26:

wherein the first intelligent diagnosis agent receives a first command to enter an identification of the media distribution device in a service log for a subsequent arrangement for an on-site technical service call (if functional, the diagnostic information collected by the system and sent to the headend includes the device ID, col. 3 line 35-col. 4 line 15).

On the other hand, although Middeke teaches sending commands to remotely troubleshoot the receiving devices (col. 10, lines 35-62—commands are sent to the

receiver to mitigate reported problems, the commands including resetting the receiver and resetting customer preferences to factory defaults), Middeke does not explicitly teach that the commands are

"to perform at least one of upgrading an operating system in the media distribution device, and performing a remedial action related to the network connection, in response to a determination that the network connection is not functional"; and
"removing the 1st diagnostic agent", "uploading a second diagnostic agent to the media distribution device in response to a determination that the first diagnostic agent is not functional" and "removing the 1st diagnostic agent"; and
"examining a memory of the media distribution device for a first diagnostic agent and that also diagnostic data associated with a second device not physically connected to the media distribution is gathered".

However, in an analogous art, Matsumura teaches a method and apparatus for self-diagnostic and error detection mechanism on a television receiver (title; abstract; col. 1 line 63-col. 2 line 12; col. 6 lines 46-63). Matsumura teaches having two basic computer program stored on two different parts of the device's memory (col. 6 lines 46-67). During the device's boot up, the system checks/examines the first memory to see if the first basic program has problems and therefore, the CPU is erroneously operated (s11 and s12, Fig. 11; col. 10 lines 1-19). If it finds errors on the program of the first memory place, the system selects the second boot program from the second location (s18) and checks if it has errors (s20). If it has problems (Yes on s20), a new program is requested from the service provider s21) and installed (s22), overwriting the installed programs. This process is repeated as long as errors are found even on the newly installed programs and there is a good program stored in either one of the computer memory locations (No in s20) (Fig. 11; col. 9 line 61-col. 11 line 56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Middeke's invention with Matsumura's feature of checking for error on the boot program, and installing/overwriting new copies of the programs on the designated memory locations for the benefit of being able to boot a receiver even if one or both of the boot up programs have errors.

Additionally, although Middeke and Matsumura teach that the monitoring and report of diagnostic data can include multiple devices (34, Fig. 2), they do not explicitly teach that the multiple devices are not physically connected to the media distribution device.

However, in an analogous art, Humpleman teaches a device (col. 6 lines 35-60) connected to multiple home devices (fig. 3) and appliances and that allows remote diagnosis(col. 21 line 47-col. 22 line 57).

Therefore, it would been obvious to one of ordinary skill in the art at the time of the invention to have modified Middeke and Matsumura' invention with Humpleman's feature of monitoring multiple local devices for the benefit of reducing the number of reports sent to a remote diagnostic server.

Regarding claim 2, Middeke, Matsumura and Humpleman teach the step of uploading the first diagnostic agent to the media distribution device (STB) over an alternative network connection, in response to a determination that the network connection is not functional (reads on Middeke in which the remote technician at the remote service, i.e., workstation 30, by analyzing the diagnostic information received

from the receiver, Col. 3, lines 40-Col. 15, the remote technician able to determine whether or not the network connection is functional. In view of the result, the remote technician able to reset the receiver to factory default including the first diagnostic agent that was pre-loaded by default based on the network communication status; Col. 10, lines 35-63; for example if the strength of the satellite transponder is weak, the only way to communicate between the receiver 24 and the remote service center 30 is through the communication line 32 of Fig. 1 so the technician able to troubleshoot the receiver 24).

Regarding claim 4, Middeke, Matsumura and Humpleman teach the step of remedying the operational problem (Col. 10, lines 35-42).

Regarding claim 5, "the step of uploading a second diagnostic agent to the media distribution device, in response to a determination that the network connection is not functional" is analyzed with respect to claim 1 in which Middeke's remote technician at the remote service, i.e., workstation 30, by analyzing the diagnostic information received from the receiver, Col. 3, lines 40-Col. 15, the remote technician able to determine whether or not the network connection is functional. In view of the result, the Middeke's remote technician in view of Medvinsky able to uploading a second diagnostic agent to the media distribution device through another communication link).

Regarding claim 8, Middeke, Matsumura and Humpleman teach further discloses the media distribution device is a STB (see Fig. 2; Col. 4, lines 15-40).

Claim 9 is analyzed with respect to claim 1.

Regarding claim 10, Middeke, Matsumura and Humpleman teach wherein the intelligent diagnostic agent is executable in the system memory (Col. 6, lines 18-30).

Regarding claim 12, "wherein the diagnostic service center can determine whether the diagnostic agent is functional" is further by Middeke' as analyzed with respect to claim 1 in which the remote service, i.e., workstation 30, able to receive the diagnostic information from the receiver.

Regarding claim 13 is analyzed with respect to claim 1.

Regarding claim 14, Middeke, Matsumura and Humpleman teach wherein the communication link is a broadband communication (see Fig. 1).

Regarding claim 15, Middeke, Matsumura and Humpleman teach do not clearly disclose the use of an ADSL as communication link.

Official Notice is taken that the use of ADSL is notoriously well known in the art for telephone companies to offer "video dial tone" over twisted pair. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to modify Middeke in view of Medvinsky to use ADSL as communication so to provide to user an alternative way to receive video at high-speed over telephone twisted pair network.

Regarding claim 16, Middeke, Matsumura and Humpleman teach wherein the communication link is a satellite connection (see Fig. 1).

Claims 17 and 18 are analyzed with respect to claim 1.

Claim 19 is analyzed with respect to claim 2.

Claim 24 is analyzed with respect to claim 4.

Claim 27 is analyzed with respect to claims 1 and 26.

Claim 29 is analyzed with respect to claim 2.

Regarding claim 30, Middeke, Matsumura and Humpleman teach wherein the at least one 2nd communication path comprises a wireless link (Col. 3, lines 30-32).

Regarding claim 31, Middeke, Matsumura and Humpleman teach wherein the wireless link comprises satellite communication (Col. 3, lines 30-32).

Regarding claim 32, Middeke, Matsumura and Humpleman teach wherein code related to the 1st diagnostic software agent is stored in the media distribution device at

the remote site for diagnostic testing and is later removed to allow more storage during an operational condition of the at least one device (see analysis of claim 1).

Regarding claim 33, Middeke, Matsumura and Humpleman teach wherein the first diagnostic software agent is interactive with a customer through a presentation device (Col. 4, lines 60-67+).

Regarding claim 34, Middeke, Matsumura and Humpleman teach the step of entering identification of a media distribution device in a service log (Col. 3, lines 40-Col. 4, lines 15).

Regarding claim 35, Middeke, Matsumura and Humpleman further teach wherein entering the identification of the media distribution device is performed autonomously by the diagnostic agent (Col. 4, lines 48-Col. 5, lines 13).

Regarding claim 36, Middeke, Matsumura and Humpleman further teach "presenting a user interface over the media presentation device; and receiving input from a user via the user interface" (Col. 3, lines 15-21)

4. Claims **24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Middeke et al. (hereinafter 'Middeke', Patent No. 6,445,907) in view of Matsumura (Patent No. 6,412,082) in further view of Humpleman et al. (hereinafter 'Humpleman',

Patent 6,546,419) in further view of Watanabe et al. (hereinafter 'Watanabe', Patent No. 4,905,080).

Regarding claims 24 and 25, Middeke teaches a method for analyzing the operation of a media distribution device (col. 2, lines 1-20), the method comprising the steps of:

determining whether a network connection is functional **(by monitoring whether a service request is received from the service center 28; Col. 6, lines 1-15)**;

determining whether a 1st diagnostic agent is functional, in response to a determination that the network connection is functional **(by detecting a service request at step 124, Col. 6, lines 17-18)**;

causing the 1st diagnostic agent, residing on the media distribution device, to collect diagnostic data associated with the media distribution device (STB), in response to a determination that the 1st diagnostic agent is functional **(gathering diagnostic information; Col. 6, lines 19-30)**;

analyzing the diagnostic data to determine an operational problem associated with the media distribution device (STB) **(service center analyzes the received diagnostic information; Col. 10, lines 60-63 and service technician remotely trouble-shoot and reconfigured the receiver; Col. 10, lines 35-55)** and with a second device not physically connected to the media distribution device **(Middeke refers to a satellite television system that serves and diagnoses not only one, but many other household terminals that are not physically connected to the first**

media distribution device. Therefore, the analysis of the diagnosis data is performed for more than one device found with problems, at least: col. 1 lines 8-10 and lines 37-60).

Additionally, for claims 6 and 26:

wherein the first intelligent diagnosis agent receives a first command to enter an identification of the media distribution device in a service log for a subsequent arrangement for an on-site technical service call (if functional, the diagnostic information collected by the system and sent to the headend includes the device ID, col. 3 line 35-col. 4 line 15).

On the other hand, although Middeke teaches sending commands to remotely troubleshoot the receiving devices (col. 10, lines 35-62—commands are sent to the receiver to mitigate reported problems, the commands including resetting the receiver and resetting customer preferences to factory defaults), Middeke does not explicitly teach that the commands are

"to perform at least one of upgrading an operating system in the media distribution device, and performing a remedial action related to the network connection, in response to a determination that the network connection is not functional"; and
"removing the 1st diagnostic agent", "uploading a second diagnostic agent to the media distribution device in response to a determination that the first diagnostic agent is not functional" and "removing the 1st diagnostic agent"; and
"examining a memory of the media distribution device for a first diagnostic agent and that also diagnostic data associated with a second device not physically connected to the media distribution is gathered".

However, in an analogous art, Matsumura teaches a method and apparatus for self-diagnostic and error detection mechanism on a television receiver (title; abstract; col. 1 line 63-col. 2 line 12; col. 6 lines 46-63). Matsumura teaches having two basic

computer program stored on two different parts of the device's memory (col. 6 lines 46-67). During the device's boot up, the system checks/examines the first memory to see if the first basic program has problems and therefore, the CPU is erroneously operated (s11 and s12, Fig. 11; col. 10 lines 1-19). If it finds errors on the program of the first memory place, the system selects the second boot program from the second location (s18) and checks if it has errors (s20). If it has problems (Yes on s20), a new program is requested from the service provider s21) and installed (s22), overwriting the installed programs. This process is repeated as long as errors are found even on the newly installed programs and there is a good program stored in either one of the computer memory locations (No in s20) (Fig. 11; col. 9 line 61-col. 11 line 56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Middeke's invention with Matsumura's feature of checking for error on the boot program, and installing/overwriting new copies of the programs on the designated memory locations for the benefit of being able to boot a receiver even if one or both of the boot up programs have errors.

Additionally, although Middeke and Matsumura teach that the monitoring and report of diagnostic data can include multiple devices (34, Fig. 2), they do not explicitly teach that the multiple devices are not physically connected to the media distribution device.

However, in an analogous art, Humpleman teaches a device (col. 6 lines 35-60) connected to multiple home devices (fig. 3) and appliances and that allows remote diagnosis(col. 21 line 47-col. 22 line 57).

Therefore, it would been obvious to one of ordinary skill in the art at the time of the invention to have modified Middeke and Matsumura' invention with Humpleman's feature of monitoring multiple local devices for the benefit of reducing the number of reports sent to a remote diagnostic server.

Finally, although Middeke, Matsumura and Humpleman teach having a modem to communicate upload with the provider (Middeke: col. 5 lines 13-19. Matsumura: col. 11 lines 6-19), they do not explicitly teach communicating during off-peak hours of operation for the media distribution device.

However, in an analogous art, Watanabe teaches a monitoring device that transmits monitoring data to a remote center during off-peak hours through a modem (Abstract; col. 13 line 55-col. 14 line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Middeke, Matsumura and Humpleman with Watanabe's feature of communicating through a modem on off-peak hours for the benefit of not disturbing user's telephone line (Watanabe: col. 13 line 55-60).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMAR PARRA whose telephone number is (571)270-1449. The examiner can normally be reached on 9-6 PM (M-F, every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Sheleheda/
Primary Examiner, Art Unit 2424

OP